

Art Unit: 1600

Claims PTO

Tplunkett

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1. A recombinant RNA molecule which can be translated at least partly in a target cell, comprising a noninfectious virus genome of Coxsackie virus group B, preferably sero-type B3, and at least one foreign gene which causes a desired function in the target cell, for example within the framework of a gene therapy.
2. (Amended) The RNA molecule of Claim 1, [characterized in that it] which is replication-competent in the target cell.
3. (Amended) The RNA molecule of Claim 1 [or 2], [characterized in that] wherein in the virus genome parts of its coding sequence have been replaced by the at least one foreign gene.
4. (Amended) The RNA molecule of Claim [3] 2, [characterized in that] wherein in the virus genome the sequences of its capsid proteins VP1-VP4 have been replaced by the at least one foreign gene.
5. (Amended) The RNA molecule of Claim [3 or 4] 2, [characterized in that] wherein in the virus genome the sequences of its protease 2A and/or 3C have been [replaced or] modified such that there is no cytotoxicity for the target cell.
6. (Amended) The RNA molecule of [any of claims 3 to 5] Claim 2, [characterized in that] wherein in the virus genome the sequences of its helicase 2C have been replaced by the at least one foreign gene.
7. (Amended) The RNA molecule of [any of claims 3 to 6] Claim 2, [characterized in that] wherein in the virus genome the sequences of its protein 2B have been replaced by the at least one foreign gene.

claim 8 is cancelled

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9. (Amended) A recombinant, infectious virion which is derived from Cocksackie Virus group B, preferably serotype B3, and whose genome comprises [is] the RNA molecule of [any of Claims 1 to 7] Claim 1.
10. (Amended) The virion of Claim 9, [characterized in that it] which corresponds in its structural proteins to a Cocksackie virus group B, preferably serotype B3.

Claim 11 is cancelled

12. (Amended) A vector plasmid having at least one DNA sequence which codes for the RNA molecule of [any of Claims 1 to 7] Claim 1 and having a promoter located in front of the DNA sequence.
13. (Amended) A helper construct for complementing the coding sequences replaced in the RNA molecule of [any of Claims 1 to 7] Claim 1.
14. (Amended) The helper construct of Claim 13, [characterized in that it] which is a helper plasmid which codes for at least one of the replaced sequences in a translatable manner.
15. (Amended) The helper construct of Claim 13, [characterized in that it] which is a viral vector which codes for at least one of the replaced sequences in a translatable manner.
16. (Amended) The helper construct of Claim 13, [characterized in that it] which is a helper cell which has been transfected stably with helper DNA coding for at least one of the replaced sequences.

Claims 17-20 are cancelled

21. (Amended) A kit, [with] comprising the vector plasmid of Claim [13] 12 and the helper construct of [any of claims] Claim 13 [to 16].
22. (Amended) A DNA molecule having at least one sequence section coding for the RNA molecule of [any of claims 1 to 7] Claim 1.
23. A kit with a DNA molecule of claim 22.

Claim 24 is cancelled.

25. (Amended) A therapeutic composition [with] comprising the RNA molecule of [any of claims 1 to 7] Claim 1.

26. A therapeutic composition with the vector plasmid of claim 12.

27. (Amended) A therapeutic composition with [virions] the virion of Claim 9 [or claim 10].

28. (Amended) A DNA construct which codes for the RNA molecule of [any of Claims 1 to 7] Claim 1 and which persists and transcribes in a target cell but preferably does not replicate in the latter.

29. (Amended) A recombinant virus, preferably adeno- or retrovirus, which codes for the recombinant RNA molecule of [any of Claims 1 to 7] Claim 1 and, after infection, expresses it in a target cell, leading to a cytoplasmic replicon which is produced continuously.

Claims 31 and 32 are cancelled.